

Average precipitation and departure from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		<i>Inches.</i>		<i>Inches.</i>	<i>Inches.</i>
New England.....	8	5.67	147	+1.8	+1.9
Middle Atlantic.....	12	4.75	123	+0.9	+1.5
South Atlantic.....	10	5.06	113	+0.6	+1.6
Florida Peninsula*.....	8	5.94	202	+3.0	+7.8
East Gulf.....	9	7.48	134	+1.9	+6.6
West Gulf.....	7	4.81	141	+1.4	+3.4
Ohio Valley and Tennessee.....	11	4.66	107	+0.3	+0.2
Lower Lake.....	8	2.72	108	+0.2	+0.4
Upper Lake.....	10	2.33	115	+0.3	+0.6
North Dakota*.....	8	0.41	51	-0.4	-0.6
Upper Mississippi Valley.....	11	2.30	100	0.0	-1.0
Missouri Valley.....	11	1.53	84	-0.3	-0.6
Northern Slope.....	7	0.88	100	0.0	-0.1
Middle Slope.....	6	1.34	100	0.0	+0.2
Southern Slope*.....	6	1.47	137	+0.4	+2.2
Southern Plateau*.....	13	1.31	144	+0.4	-0.5
Middle Plateau*.....	8	1.43	108	+0.1	-0.1
Northern Plateau*.....	12	1.36	93	-0.1	-1.8
North Pacific.....	7	4.76	92	-0.4	-4.6
Middle Pacific.....	5	5.47	138	+1.5	-0.3
South Pacific.....	4	3.84	171	+1.6	+0.3

*Regular Weather Bureau and selected voluntary stations.

HUMIDITY.

The averages by districts appear in the subjoined table:

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England.....	82	+ 7	Missouri Valley.....	77	+ 5
Middle Atlantic.....	79	+ 7	Northern Slope.....	72	+ 5
South Atlantic.....	81	+ 6	Middle Slope.....	74	+14
Florida Peninsula.....	80	+ 6	Southern Slope.....	72	+17
East Gulf.....	84	+11	Southern Plateau.....	40	+ 4
West Gulf.....	78	+ 6	Middle Plateau.....	62	+ 6
Ohio Valley and Tennessee.....	79	+ 8	Northern Plateau.....	68	+ 2
Lower Lake.....	83	+ 7	North Pacific.....	75	0
Upper Lake.....	82	+ 3	Middle Pacific.....	78	+ 4
North Dakota.....	76	+ 2	South Pacific.....	74	+ 3
Upper Mississippi Valley.....	78	+ 5			

ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table IV, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

Thunderstorms.—Reports of 2149 thunderstorms were received during the current month as against 2035 in 1902 and 802 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country was most numerous were: 7th, 341; 20th, 230; 19th, 193.

DESCRIPTION OF TABLES AND CHARTS.

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For description of tables and charts see page 582 of REVIEW for December, 1902.

Reports were most numerous from: Ohio, 127; Missouri, 119; Illinois, 112; Tennessee and Texas, 111.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz: 9th to 17th.

In Canada: Thunderstorms were reported at Bissett, 20th; Toronto, 20; Port Stanley, 20; Parry Sound, 18, 20. No auroras were reported.

WIND.

The maximum wind velocity at each Weather Bureau station for a period of five minutes is given in Table I, which also gives the altitude of Weather Bureau anemometers above ground.

Following are the velocities of 50 miles and over per hour registered during the month:

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Buffalo, N. Y.....	1	56	w.	New York, N. Y.....	25	52	n.w.
Do.....	20	51	w.	North Head, Wash.....	9	60	s.
Cape Henry, Va.....	30	54	n.e.	Do.....	10	90	s.
Charleston, S. C.....	29	55	n.e.	Do.....	30	58	s.
Chicago, Ill.....	23	50	s.w.	Point Reyes Light, Cal.....	2	74	n.w.
Do.....	24	52	s.w.	Do.....	2	74	n.w.
Columbus, Ohio.....	23	51	w.	Do.....	2	55	s.e.
Denver, Colo.....	13	51	n.	Do.....	30	55	s.
Detroit, Mich.....	24	50	s.w.	Syracuse, N. Y.....	7	55	s.
Dodge, Kans.....	17	50	s.	Tatoosh Island, Wash.....	3	66	s.w.
Indianapolis, Ind.....	23	50	s.w.	Do.....	13	74	s.
Marquette, Mich.....	30	50	s.w.	Do.....	28	55	s.
Mount Tamahpais, Cal.....	3	52	n.w.	Winnemucca, Nev.....	30	52	s.w.
New York, N. Y.....	1	54	w.				

SUNSHINE AND CLOUDINESS.

The distribution of sunshine is graphically shown on Chart VII, and the numerical values of average daylight cloudiness, both for individual stations and by geographical districts, appear in Table I.

The averages for the various districts, with departures from the normal, are shown in the following table:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England.....	6.0	+ 0.4	Missouri Valley.....	5.5	- 0.1
Middle Atlantic.....	6.3	+ 0.8	Northern Slope.....	5.3	+ 0.0
South Atlantic.....	6.5	+ 1.8	Middle Slope.....	5.2	+ 0.8
Florida Peninsula.....	5.5	+ 1.5	Southern Slope.....	4.0	- 0.2
East Gulf.....	7.5	+ 2.8	Southern Plateau.....	4.1	+ 1.1
West Gulf.....	6.3	+ 1.1	Middle Plateau.....	5.7	+ 0.8
Ohio Valley and Tennessee.....	7.0	+ 1.1	Northern Plateau.....	5.2	- 0.3
Lower Lake.....	6.6	+ 0.2	North Pacific.....	6.1	- 0.5
Upper Lake.....	6.5	+ 0.6	Middle Pacific.....	6.9	+ 1.9
North Dakota.....	5.6	+ 0.1	South Pacific.....	5.4	+ 0.9
Upper Mississippi Valley.....	6.0	+ 0.5			

TABLE 1.—Climatological data for Weather Bureau Stations, March, 1903.

Table with columns for Stations, Elevation of instruments, Pressure, Temperature of the air, Precipitation, and Wind. Rows are categorized by region: New England, Mid. Atlantic States, S. Atlantic States, Florida Peninsula, East Gulf States, West Gulf States, Ohio Val. and Tenn., Lower Lake Region, and Upper Lake Region.

TABLE I.—Climatological data for Weather Bureau Stations, March, 1903—Continued.

Table with columns for Stations, Elevation of instruments, Pressure, Temperature of the air, Precipitation, and Wind. Rows include various locations such as Moorhead, Bismarck, Williston, Upper Miss. Valley, Minnesota, etc.

NOTE.—The data at stations having no departures are not used in computing the district averages. * More than one date.

TABLE II.—Climatological record of voluntary and other cooperating observers, March, 1903.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow), and similar columns for Arizona, California, and other regions. Includes data for stations like Anniston, Ashville, Benton, etc., and various weather observations.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with columns for Stations, Temperature (Fahrenheit), and Precipitation. It is divided into three main sections: California—Cont'd., Colorado—Cont'd., and Florida—Cont'd. Each section lists various locations and their corresponding weather data for March 1903.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). Rows are organized by state: Idaho-Cont'd, Illinois-Cont'd, Indiana, Iowa-Cont'd.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with columns for Stations, Temperature (Fahrenheit), and Precipitation. It is organized into three main sections: Iowa-Cont'd., Kentucky-Cont'd., and Maine-Cont'd. Each section lists various locations and provides data for maximum, minimum, and mean temperatures, as well as rain, snow, and total precipitation.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) [Maximum, Minimum, Mean], Precipitation [Rain and melted snow, Total depth of snow]. Rows are organized by state: Michigan-Cont'd, Minnesota, Mississippi-Cont'd, and Missouri.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). Rows are organized by state: Missouri-Cont'd, Montana, Nebraska-Cont'd, and Nebraska. Each row lists a station name and its corresponding weather data.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.							
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.						
<i>New Jersey—Cont'd.</i>						<i>New York—Cont'd.</i>						<i>North Carolina—Cont'd.</i>											
Newton	74	20	45.8	4.92		Gloversville	78	15	39.2	7.32	3.0	Monroe	79	28	58.5	6.53	Monroe	74	23	54.2	9.29		
Oceanic	68	25	47.6	5.19		Greenwich	73	19	41.8	5.86	1.0	Morganton	74	23	53.0	7.53	Morganton	73	23	53.0	7.53		
Paterson	77	23	48.6	5.40		Griffin Corners	70	14	40.8	4.23	T.	Murphy	80	36	60.5	5.20	Murphy	72	24	48.8	8.07		
Pemberton	73	23	48.6	3.60		Harkness	73	1	38.4	3.33	0.8	Newbern	81	25	57.5	7.89	Newbern	77	26	54.8	6.56		
Perth Amboy	71	35	51.6	2.75		Haskinville				5.46	T.	Pittsboro	81	25	57.5	7.89	Pittsboro	77	26	54.8	6.56		
Phillipsburg	71	25	47.4	4.39		Hemlock	71	20	42.0	3.89		Reidsville	77	26	54.8	6.56	Reidsville	83	33	60.6	3.44		
Plainfield	73	21	47.0	4.08	T.	Indian Lake	67	4	35.8	4.83	4.5	Rockingham	76	24	54.6	8.18	Rockingham	76	24	54.6	8.18		
Rancocas				4.84		Ithaca	75	21	42.1	4.62	T.	Roxboro	76	28	57.7	8.66	Roxboro	76	24	54.2	6.63		
Ringwood	72	13	45.6	5.47		Jamestown	77	18	44.8	3.73	0.5	Salisbury	76	28	57.7	8.66	Salisbury	76	24	54.2	6.63		
Rivervale	73	16	46.2	5.14		Keene Valley	77	0	39.3	3.79	2.5	Salem	76	24	54.2	6.63	Salem	76	20	52.6	6.75		
Salem	72	24	48.6	5.33		King Ferry				5.21	T.	Saxton	76	20	52.6	6.75	Saxton	79	35	58.7	4.38		
Somerville	73	22	48.0	4.42		Liberty	70	13	40.8	5.11		Selma	79	35	58.7	4.38	Selma	75	23	55.2	9.47		
South Orange	70	22	46.9	4.51	T.	Littlefalls, City Res.	74	16	39.7	5.21	0.5	Settle	75	23	55.2	9.47	Settle	79	35	59.8	6.21		
Sussex	73	19	45.9	3.79		Lockport	76	19	41.4	2.82	T.	Sloan	79	35	59.8	6.21	Sloan	77	23	54.2	7.92		
Toms River	74	20	48.0	5.34		Lowville	71	14	37.8	3.33	1.0	Soapstone Mount	77	23	54.2	7.92	Soapstone Mount	82	29	60.4	5.05		
Trenton	75	30	51.8	5.55		Lyons	80	19	43.5	4.49	1.5	Southern Pines a	82	29	60.4	5.05	Southern Pines a	79	31	59.8	4.95		
Tuckerton	70	19	47.2	8.07		Middletown	67	21	45.2	3.35	T.	Southern Pines b	79	31	59.8	4.95	Southern Pines b	79	38	60.2	6.33		
Vineland	75	22	49.5	6.39		Mohonk Lake	65	21	43.0	4.60	T.	Southport	79	38	60.2	6.33	Southport	80	32	58.8	5.13		
Woodbine	71	20	47.6	8.53		Moir	72	2	37.1	3.30	4.0	Springhope	76	23	54.6	8.66	Springhope	76	34	59.6	5.48		
Woodstown				4.63		Mount Etrick	70	16	39.7			Tarboro	80	37	60.9	5.24	Tarboro	80	37	60.9	5.24		
<i>New Mexico.</i>						<i>North Dakota.</i>						<i>Ohio.</i>											
Alamogordo	83	20	52.2	0.40	T.	Newark Valley				4.66	1.0	Amenia	52	2	25.6	0.50	5.0	Amenia	59	6	22.4	0.60	6.0
Albert	83	2	45.0	T.	New Lisbon	71	12	39.0	5.77	T.	Ashley	57	6	23.2	1.56	15.6	Ashley	57	6	23.2	1.56	15.6	
Albuquerque	89	12	47.2	0.38		North Hammond	72	14	41.4	2.48	0.5	Berlin	46	-14	16.4	0.20	2.0	Berlin	46	-14	16.4	0.20	2.0
Alma	78	12	44.2	0.29		North Lake				4.79	5.0	Bottineau	49	-6	24.6	1.17	11.7	Bottineau	49	-6	24.6	1.17	11.7
Arabella	77	14	47.3	T.	Nunda	78	18	43.4	4.17	T.	Buxton	50	-9	18.0	0.74	4.9	Buxton	50	-9	18.0	0.74	4.9	
Bellbranch				0.36		Ogdenburg	68	5	37.8	2.29	1.0	Church Ferry	80	-7	21.8	0.35	3.5	Church Ferry	80	-7	21.8	0.35	3.5
Cambay				0.80		Old Chatham				4.80		Devi's Lake	49	-8	19.8	0.53	4.5	Devi's Lake	49	-8	19.8	0.53	4.5
Carlsbad	90	19	53.8	T.	Oneonta	74	18	42.0	5.90	T.	Dickinson	68	-6	23.8	T.	Dickinson	68	-6	23.8	T.			
Cloudcroft	51	-2	32.6	0.90	9.0	Oswegatchie	79	7	38.9	4.56	4.9	Donnybrook				0.50	5.0	Donnybrook	57	-15	17.9	0.50	5.0
Deming				1.00		Otto	73	13	41.8	3.33		Dunseith	57	-15	17.9	0.50	5.0	Dunseith	57	-15	17.9	0.50	5.0
Dorsey	71	-1	40.0	0.22	3.0	Oxford	72	15	41.0	5.64	1.3	Edgely	56	-3	25.6	0.88	8.8	Edgely	56	-3	25.6	0.88	8.8
Eagle Rock Ranch	72	-12	38.2	0.18	1.4	Palermo				3.91	3.9	Elbowoods	63	-8	20.5		Elbowoods	63	-8	20.5			
Engle	78	22	47.0	0.83		Penu Yan	75	21	41.4	4.43	T.	Ellendale	58	-3	27.1	0.70	7.0	Ellendale	58	-3	27.1	0.70	7.0
Fort Bayard	76	16	46.2	1.27		Perry City	74	14	40.8	5.34	T.	Fargo	50	-5	22.1	0.42	4.0	Fargo	50	-5	22.1	0.42	4.0
Fort Stanton	73	9	41.4	0.17	0.1	Plattsburg	63	13	35.4	4.15	T.	Forman	55	0	26.1	0.32	3.4	Forman	55	0	26.1	0.32	3.4
Fort Union	75	10	40.4	0.11	T.	Port Jervis	73	17	44.8	3.68		Fort Yates	73	-5	27.0	0.41	4.1	Fort Yates	73	-5	27.0	0.41	4.1
Fort Wingate	64	2	33.9	0.45	2.0	Primrose	73	18	44.6	5.43		Fullerton	55	-6	23.9	1.17	11.7	Fullerton	55	-6	23.9	1.17	11.7
Fruitland	71	11	41.8	0.10		Redhook				5.03		Gallatin	53	-19	22.2	0.90	9.0	Gallatin	53	-19	22.2	0.90	9.0
Gage				0.90	T.	Richmondville	73	17	42.0	5.16	T.	Glenullin	67	-4	26.2	0.30	2.7	Glenullin	67	-4	26.2	0.30	2.7
Galisteo	65	5	43.7	0.45		Ridgeway	76	19	41.4	3.31	1.2	Grafton	51	-1	21.6	0.89	7.0	Grafton	51	-1	21.6	0.89	7.0
Gallinas Spring	75	-6	42.2	0.27		Rome	75	19	42.0	5.95	2.0	Hamilton	50	-5	19.6	1.58	6.2	Hamilton	50	-5	19.6	1.58	6.2
Golden				1.04	T.	Romulus	76	19	42.5	5.44		Hannaford	55	-15	22.0	0.46	4.6	Hannaford	55	-15	22.0	0.46	4.6
Hot Springs	72	-8	40.2	0.08	T.	Salisbury Mills				4.09		Jamestown	48	-8	21.4	0.83	8.3	Jamestown	48	-8	21.4	0.83	8.3
Las Vegas	72	-11	39.8	0.13	T.	Saranac Lake	76	5	38.0	4.85	4.7	Larimore	55	-6	20.4	0.70	6.0	Larimore	55	-6	20.4	0.70	6.0
Lordsburg				0.90		Setauket	68	22	45.3	7.35		McKinney	61	-24	15.5		McKinney	61	-24	15.5			
Los Lunas	79	20	46.1	0.55		Shortsville	78	19	42.1	3.83	0.5	Mayville	49	-1	22.8	0.93	9.3	Mayville	49	-1	22.8	0.93	9.3
Luna	72	9	38.3	0.58		Skaneateles				5.70		Medora	47	-5	23.0	0.35	3.0	Medora	47	-5	23.0	0.35	3.0
Mesilla Park	83	17	49.6	0.37		Southampton	63	23	43.6	6.82		Melville	53	-2	23.0	0.22	2.2	Melville	53	-2	23.0	0.22	2.2
Mountainair	71	0	40.4	0.46	3.0	South Butler	78	17	41.6	5.16	0.8	Milton	42	-9	18.2	0.40	3.5	Milton	42	-9	18.2	0.40	3.5
Raton	87	0	40.4	0.05		South Canistota	76	17	41.0	4.64	1.0	Minne-waukon	50	-5	21.6	0.00	0.0	Minne-waukon	50	-5	21.6	0.00	0.0
Roswell	88	14	49.6	0.10		Southeast Reservoir				5.19		Minot	67	-5	22.0	0.60	6.0	Minot	67	-5	22.0	0.60	6.0
San Marcial	81	12	49.8	T.	South Kortright	72	15	41.8	4.74	T.	Minto	53	-3	20.6	1.19	10.3	Minto	53	-3	20.6	1.19	10.3	
Strauss				0.40		South Schroon	72	12	37.6	5.80	6.1	Napoleon	62	-7	23.6	0.55	4.5	Napoleon	62	-7	23.6	0.55	4.5
Taos	67	-5	38.6	1.40		Speer Falls	71	18	41.6	6.18		New England	65	-10	25.8	0.20	2.0	New England	65	-10	25.8	0.20	2.0
Winsors	61	-17	32.1	1.02		Straits Corners	74	17	40.8	4.56	T.	Oakdale	63	-2	24.3	0.45	4.0	Oakdale	63	-2	24.3	0.45	4.0
<i>New York.</i>						<i>North Carolina.</i>						<i>Ohio.</i>											
Adams				2.52	6.0	Ticonderoga	70	18	40.6	3.87	1.8	Akron	75	22	45.4	2.69	0.8	Akron	75	22	45.4	2.69	0.8
Addison	78	20	43.8	4.56	T.	Volusia	75	17	41.2	2.51	1.0	Atwater	72	18	45.3	4.50	T.	Atwater	72	18	45.3	4.50	T.
Adirondack Lodge	64	0	34.4	5.72	20.1	Walton	73	16	41.8	5.19	0.7	Bangorville	76	18	45.9	2.38	T.	Bangorville	76	18	45.9	2.38	T.
Akron				3.44		Wappinger Falls	73	20	45.6	4.72	T.	Bellefontaine	76	18	45.9	2.38	T.	Bellefontaine	76	18	45.9	2.38	T.
Alden	76	18	43.0	4.80	0.5	Warwick				3.34		Bement				2.00	0.5	Bement				2.00	0.5
Amsterdam				5.41	3.4	Watertown	74	11	40.2	3.82	3.5	Benton Ridge	77	22	44.8	1.94	0.5	Benton Ridge	77	22	44.8	1.94	0.5
Angelica	80	17	43.4	4.60	T.	Waverly	78	17	43.8	4.27	T.	Bladesburg	78	17	45.8	3.70		Bladesburg	78	17	45.8	3.70	
Appleton	79	19	40.6	2.55	T.	Wedgwood	74	17	40.2	5.42	0.5	Blaine				6.43	2.0	Blaine				6.43	2.0
Arcade	74	12	39.6	4.22	2.0	West Berne	78	16	40.8	5.15		Bloomington	78	21	43.6	1.97	T.	Bloomington	78	21	43.6	1.97	T.
Athens	74	20	44.4	4.21	T.	Westfield b	75	16	41.8	3.11		Bowling Green											

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). The table is divided into three sections: Ohio-Cont'd, Oklahoma-Cont'd, and Pennsylvania-Cont'd. Each section lists various weather stations and their corresponding data for the month of March 1903.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with 15 columns: Stations, Temperature (Fahrenheit) (Maximum, Minimum, Mean), Precipitation (Rain and melted snow, Total depth of snow). The table is divided into three main sections: South Carolina—Cont'd., Tennessee—Cont'd., and Texas—Cont'd. Each section lists various weather stations and their corresponding monthly data for March 1903.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Table with columns for Stations, Temperature (Fahrenheit), and Precipitation. It is divided into sections for Utah, Washington, West Virginia, Virginia, and Wyoming, with sub-sections for Porto Rico. Each station entry includes maximum, minimum, and mean temperatures, and rain and total depth of snow.

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Porto Rico—Cont'd.</i>					
Arecibo	87	56	73.4	4.74	
Barros	86	51	69.8	1.55	
Baysmon	90	56	74.4	2.73	
Caguas	90	54	74.0	1.80	
Canovanas	88	67	77.3	1.34	
Caye	86	54	70.5	0.85	
Cidra	86	50	70.1	4.80	
Coamo	92	56	75.8	T.	
Corozal	90	54	71.2	2.21	
Fajardo	86	62	76.6	2.24	
Guanica	92	56	74.4	1.77	
Hacienda Coloso	90	52	72.8	2.34	
Hacienda Josefa				1.79	
Hacienda Perla	88	62	76.4	3.73	
Humacao	90	70	79.3	1.21	
Isabela	85	59	73.0	3.23	
Juan Diaz	89	58	76.7	0.30	
La Carmeleta	85	59	72.1	1.32	
La Isolina	90	58	72.8	5.57	
Las Marias	90	61	75.5	1.82	
Manati	93	58	75.0	3.25	
Maunabo	88	59	75.4	2.69	
Mayaguez	92	59	75.5	2.19	
Morovis	88	56	70.8	6.13	
Ponce	89	60	76.2	0.18	
Rio Piedras				3.11	
Sau German	90	64	77.4	1.89	
San Lorenzo	90	53	73.1	1.99	
San Salvador	88	56	71.2	1.70	
Santa Isabel	89	58	75.8	0.76	
Utua	89	56	72.8	1.82	
Vieques	88	64	77.5	0.87	
Yauco	86	60	74.6	3.80	
<i>Mexico.</i>					
Ciudad P. Diaz	87	39	60.4	0.30	
Coatzacoalcos	83	60	72.2	4.19	
Leon de Aldamas	85	42	63.5	0.49	
Vera Cruz	85	63	73.0		
<i>New Brunswick.</i>					
St. John	48	5	34.0	7.66	3.6
<i>Isthmus of Panama.</i>					
Albajuela	95	64	80.8	0.39	
Bohio				1.22	
Colou				0.38	
Gamboa				0.32	
La Boca	89	72	80.7	0.04	

Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Ontario.</i>					
Peterboro				1.60	1.0
<i>Late reports for February, 1903.</i>					
<i>Alaska.</i>					
Coal Harbor	45	-10	29.6	7.32	20.2
Fort Egbert	37	-55	3.0	0.81	5.4
Fort Yukon				1.09	
Juneau	42	7	31.2	7.29	18.0
Kenai	42	-46	18.2	2.18	35.8
Orea				16.60	32.0
Wood Island	54	0	29.3	8.10	12.8
<i>Arizona.</i>					
Pinal Ranch				1.32	0.4
<i>California.</i>					
Newcastle	74	26	44.9	1.95	T.
Tulare b.				0.65	
Ventura	78	29	53.6	1.08	
<i>Colorado.</i>					
Montrose				0.95	14.0
<i>Connecticut.</i>					
Southington	57	-11	29.0	4.20	9.0
<i>Idaho.</i>					
Roosevelt	43	-14	16.0	1.18	9.6
<i>Maryland.</i>					
Pocomoke City	68	9	41.2	3.92	
<i>Montana.</i>					
Fort Benton	46	-10	17.6	0.70	7.0
<i>Nebraska.</i>					
Tecumseh c.				1.07	6.1
<i>New Jersey.</i>					
Hanover	64	-5	30.0	5.08	10.5
<i>Oregon.</i>					
Government Camp	57	4	29.2	3.30	20.0
<i>South Dakota.</i>					
Gary	37	-26	4.5		
<i>Texas.</i>					
Anson				3.00	
Temple b.	76	14	43.4	4.98	T.
<i>Vermont.</i>					
Hartland	56	-26	22.0	3.77	21.5
<i>West Virginia.</i>					
Weston a.				6.55	6.2
<i>Porto Rico.</i>					
Barros	85	50	69.8	1.62	
H. Colosa	91	55	72.4	0.65	

EXPLANATION OF SIGNS.

*Extremes of temperature from observed readings of dry thermometer.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

- 1 Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4.
- 2 Mean of 8 a. m. + 8 p. m. + 2.
- 3 Mean of 7 a. m. + 7 p. m. + 2.
- 4 Mean of 6 a. m. + 6 p. m. + 2.
- 5 Mean of 7 a. m. + 2 p. m. + 2.
- 6 Mean of readings at various hours reduced to true daily mean by special tables.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of a station, as "Livingston a," "Livingston b," indicates that two or more observers, as the case may be, are reporting from the same station. A small roman letter following the name of a station, or in figure columns, indicates the number of days missing from the record; for instance "a" denotes 14 days missing.

No note is made of breaks in the continuity of temperature records when the same do not exceed two days. All known breaks, of whatever duration, in the precipitation record receive appropriate notice.

CORRECTIONS.

December, 1902, Oregon, Grass Valley, make minimum and mean temperatures read 16 and 29.1 instead of -6 and 28.8, respectively.

TABLE III.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during the month of March, 1903.

Stations.	Component direction from—				Resultant.		Stations.	Component direction from—				Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.
<i>New England.</i>							<i>North Dakota.</i>						
Eastport, Me.	Hours 20	Hours 17	Hours 16	Hours 27	n. 75 w.	Hours 11	Moorhead, Minn.	Hours 26	Hours 16	Hours 17	Hours 19	n. 11 w.	Hours 10
Portland, Me.	20	21	11	24	s. 86 w.	13	Bismarck, N. Dak.	31	17	17	9	n. 30 e.	16
Concord, N. H.	12	8	12	9	n. 45 e.	4	Williston, N. Dak.	21	14	19	15	n. 30 e.	8
Northfield, Vt.	18	37	4	10	s. 18 w.	20	<i>Upper Mississippi Valley.</i>						
Boston, Mass.	21	16	17	21	n. 89 w.	6	Minneapolis, Minn.*	12	6	10	9	n. 9 e.	6
Nantucket, Mass.	18	23	17	21	s. 39 w.	6	St. Paul, Minn.	22	19	16	23	n. 60 w.	8
Block Island, R. I.	14	24	19	20	s. 6 w.	10	La Crosse, Wis. †	10	18	2	3	s. 7 w.	8
Narragansett, R. I.*	11	12	7	8	s. 45 w.	1	Davenport, Iowa.	16	20	16	20	s. 45 w.	6
New Haven, Conn.	23	20	16	18	n. 84 w.	4	Des Moines, Iowa.	16	24	15	20	s. 32 w.	9
<i>Middle Atlantic States.</i>							<i>Missouri Valley.</i>						
Albany, N. Y.	28	23	5	18	n. 69 w.	14	Dubuque, Iowa.	15	23	19	22	s. 21 w.	8
Binghamton, N. Y. †	13	6	11	7	n. 30 e.	8	Keokuk, Iowa.	18	25	14	18	s. 30 w.	8
New York, N. Y.	14	20	21	18	s. 27 e.	7	Cairo, Ill.	24	21	23	9	n. 78 e.	14
Harrisburg, Pa.	17	19	25	13	s. 81 e.	12	Springfield, Ill.	19	27	13	16	s. 21 w.	8
Philadelphia, Pa.	17	17	24	18	e.	6	Hannibal, Mo. †	10	12	6	9	s. 56 w.	4
Scranton, Pa.	24	17	20	18	n. 16 e.	7	St. Louis, Mo.	23	26	12	13	s. 18 w.	3
Atlantic City, N. J.	16	20	19	23	s. 45 w.	6	<i>Missouri Valley.</i>						
Cape May, N. J.	20	23	19	14	s. 69 e.	6	Columbia, Mo. *	7	11	14	5	s. 66 e.	10
Baltimore, Md.	16	20	21	14	s. 60 e.	8	Kansas City, Mo.	18	27	21	12	s. 45 e.	13
Washington, D. C.	17	22	21	10	s. 66 e.	12	Springfield, Mo.	18	23	26	11	s. 72 e.	16
Cape Henry, Va.	12	10	12	7	n. 68 e.	5	Topeka, Kans. *	9	14	7	5	s. 22 e.	5
Lynchburg, Va.	25	12	23	19	n. 17 e.	14	Lincoln, Nebr.	22	21	16	12	n. 76 e.	4
Norfolk, Va.	24	20	25	7	n. 77 e.	18	Omaha, Nebr.	24	26	9	12	s. 56 w.	4
Richmond, Va.	21	21	23	11	e.	12	Valentine, Nebr.	23	18	16	20	n. 39 w.	6
Wytheville, Va.	18	14	22	22	n.	4	Sioux City, Iowa †	12	12	6	8	w.	2
<i>Southern Atlantic States.</i>							<i>Northern Slope.</i>						
Asheville, N. C.	21	22	22	11	s. 85 e.	11	Havre, Mont.	16	13	23	23	n.	3
Charlotte, N. C.	21	21	27	7	e.	20	Miles City, Mont.	21	17	15	15	n.	10
Hatteras, N. C.	22	19	24	10	n. 78 e.	14	Helena, Mont.	27	17	7	31	n. 81 w.	24
Kittyhawk, N. C.	12	10	13	7	n. 72 e.	6	Kalispell, Mont.	16	24	11	29	s. 66 w.	14
Raleigh, N. C.	24	13	28	13	n. 54 e.	19	Rapid City, S. Dak.	23	13	14	24	n. 45 w.	20
Wilmington, N. C.	21	20	25	12	n. 86 e.	13	Cheyenne, Wyo.	22	18	5	26	n. 79 w.	21
Charleston, S. C.	24	14	28	11	n. 60 e.	20	Lander, Wyo.	11	29	9	24	s. 47 w.	20
Columbia, S. C.	18	16	33	8	n. 85 e.	25	North Platte, Nebr.	19	24	15	17	s. 22 w.	5
Augusta, Ga.	21	15	34	11	n. 75 e.	24	<i>Middle Slope.</i>						
Savannah, Ga.	16	20	28	9	s. 78 e.	19	Denver, Colo.	25	22	12	11	n. 18 e.	3
Jacksonville, Fla.	23	15	35	8	n. 73 e.	28	Pueblo, Colo.	21	15	24	18	n. 45 e.	8
<i>Florida Peninsula.</i>							<i>Southern Slope.</i>						
Jupiter, Fla.	19	14	37	7	n. 81 e.	30	Abilene, Tex.	16	26	27	9	s. 61 e.	21
Key West, Fla.	10	12	43	5	s. 87 e.	38	Amarillo, Tex.	18	30	13	12	s. 5 e.	12
Tampa, Fla.	23	8	34	11	n. 57 e.	28	<i>Southern Plateau.</i>						
<i>Eastern Gulf States.</i>							<i>Middle Plateau.</i>						
Atlanta, Ga.	16	25	28	10	s. 63 e.	20	El Paso, Tex.	17	10	20	30	n. 55 w.	12
Macon, Ga. †	12	5	12	6	n. 41 e.	9	Santa Fe, N. Mex.	23	20	18	15	s. 45 e.	4
Pensacola, Fla. †	11	3	22	3	n. 67 e.	21	Flagstaff, Ariz.	12	21	11	33	s. 68 w.	24
Mobile, Ala.	26	22	19	6	n. 73 e.	14	Phoenix, Ariz.	14	11	30	15	n. 79 e.	15
Montgomery, Ala.	21	12	33	9	n. 69 e.	26	Yuma, Ariz.	19	14	14	23	n. 61 w.	10
Meridian, Miss. †	14	5	13	5	n. 42 e.	12	Independence, Cal.	12	32	9	21	s. 31 w.	23
Vicksburg, Miss.	25	15	27	4	n. 67 e.	25	<i>Northern Plateau.</i>						
New Orleans, La.	26	14	29	6	n. 62 e.	26	Carson City, Nev.	14	27	9	28	s. 56 w.	23
<i>Western Gulf States.</i>							<i>Middle Pacific Coast Region.</i>						
Shreveport, La.	24	7	28	7	n. 51 e.	27	Winnemucca, Nev.	20	18	19	21	n. 45 w.	3
Fort Smith, Ark.	17	8	34	15	n. 65 e.	21	Modena, Utah	10	24	11	35	s. 60 w.	28
Little Rock, Ark.	28	12	25	12	n. 39 e.	21	Salt Lake City, Utah.	11	31	28	11	s. 40 e.	26
Corpus Christi, Tex.	32	14	23	6	n. 43 e.	25	Grand Junction, Colo.	15	19	25	18	s. 60 e.	8
Fort Worth, Tex.	27	18	21	9	n. 53 e.	15	<i>Northern Plateau.</i>						
Galveston, Tex.	30	15	23	6	n. 48 e.	23	Baker City, Oreg.	17	31	14	22	s. 30 w.	16
Palestine, Tex.	26	16	26	5	n. 65 e.	23	Boise, Idaho.	10	21	25	22	s. 15 e.	11
San Antonio, Tex.	27	16	30	5	n. 66 e.	27	Lewiston, Idaho †	4	12	15	8	s. 41 e.	11
Taylor, Tex. †	19	8	8	2	n. 29 e.	12	Pocatello, Idaho	2	18	43	11	s. 63 e.	36
<i>Ohio Valley and Tennessee.</i>							<i>North Pacific Coast Region.</i>						
Chattanooga, Tenn.	23	19	20	14	n. 56 e.	7	Spokane, Wash.	15	25	18	16	s. 11 e.	10
Knoxville, Tenn.	23	16	9	25	n. 66 w.	18	Walla Walla, Wash.	8	40	13	10	s. 5 e.	32
Memphis, Tenn.	28	15	21	12	n. 35 e.	16	<i>North Pacific Coast Region.</i>						
Nashville, Tenn.	19	24	20	11	s. 61 e.	10	North Head, Wash.	25	14	20	19	n. 5 e.	11
Lexington, Ky. †	8	13	13	6	s. 54 e.	9	Port Crescent, Wash. *	9	4	14	11	n. 31 e.	6
Louisville, Ky.	22	21	18	14	n. 76 e.	4	Seattle, Wash.	27	15	20	13	n. 30 e.	14
Evansville, Ind. †	12	9	11	4	n. 67 e.	8	Tacoma, Wash.	27	19	13	14	n. 7 w.	8
Indianapolis, Ind.	21	25	17	13	s. 45 e.	6	Tatoosh Island, Wash.	12	12	31	17	e.	14
Cincinnati, Ohio	19	14	25	16	n. 61 e.	10	Portland, Oreg.	22	14	14	28	n. 60 w.	16
Columbus, Ohio	16	21	22	17	s. 45 e.	7	Roseburg, Oreg.	23	18	20	15	n. 45 e.	7
Pittsburg, Pa.	20	23	17	22	s. 69 w.	6	<i>Middle Pacific Coast Region.</i>						
Parkersburg, W. Va.	23	19	17	16	n. 14 e.	4	Eureka, Cal.	14	28	15	17	s. 8 w.	14
Elkins, W. Va.	21	21	10	20	w.	10	Mount Tamalpais, Cal.	9	31	11	30	s. 39 w.	31
<i>Lower Lake Region.</i>							<i>West Indies.</i>						
Buffalo, N. Y.	9	26	15	29	s. 39 w.	22	Basseterre, St. Kitts, W. I.						
Oswego, N. Y.	16	25	16	19	s. 18 w.	19	Bridgetown, Barbados						
Rochester, N. Y.	10	18	16	30	s. 60 w.	16	Grand Turk, W. I. †	7	4	24	0	n. 83 e.	24
Syracuse, N. Y.	17	22	15	23	s. 65 w.	9	Hamilton, Bermuda	20	17	35	1	n. 85 e.	34
Erie, Pa.	19	20	13	24	s. 85 w.	11	Havana, Cuba †	1	6	27	1	s. 79 e.	26
Cleveland, Ohio	16	25	19	16	s. 18 e.	10	Puerto Principe, Cuba.						
Sandusky, Ohio †	6	14	8	10	s. 14 w.	8	San Juan, Porto Rico	10	16	41	6	s. 80 e.	36
Toledo, Ohio.	16	21	19	18	s. 11 e.	5							
Detroit, Mich.	17	21	20	19	s. 14 e.	4							
<i>Upper Lake Region.</i>							<i>South Pacific Coast Region.</i>						
Alpena, Mich.	17	17	17	23	w.	6	Fresno, Cal.	15	16	20	26	s. 80 w.	6
Escanaba, Mich.	26	22	13	13	n.	4	Los Angeles, Cal.	18	9	23	26	n. 18 w.	10
Grand Haven, Mich.	14	25	18	16	s. 10 e.	11	San Diego, Cal.	32	11	14	20	n. 16 w.	22
Houghton, Mich. †	8	5	9	10	n. 18 w.	3	San Luis Obispo, Cal.	18	20	4	21	s. 83 w.	17
Marquette, Mich.	28	18	12	19	n. 35 w.	12							
Port Huron, Mich.	19	22	17	15	s. 34 e.	4							
Sault Ste. Marie, Mich.	10	22	23	22	s. 5 e.	12							
Chicago, Ill.	15	26	19	18	s. 5 e.	11							
Milwaukee, Wis.	18	24	16	19	s. 27 w.	7							
Green Bay, Wis.	15	26	19	15	s. 20 w.	12							
Duluth, Minn.	29	8	25	17	n. 21 e.	22							

* From observations at 8 p. m. only. † From observations at 8 a. m. only.

TABLE IV.—Thunderstorms and auroras, March, 1903.

States.	No. of stations.																																Total		T. A.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	No.	Days.			
Alabama	52			2	1	2	3	1	3						2						8	3												27	10	T.	
Arizona	56				1																				7	13	2							24	0	A.	
Arkansas	57		1		3	5	13	18	2	12	4								2	14	4													78	0	T.	
California	167					1			1				11	1		2								2	7	3	1		1	4	4	3	41	0	T.		
Colorado	81									1					2	1		1									1							15	0	T.	
Connecticut	21																								1									5	0	T.	
Delaware	5										2																							5	0	T.	
Dist. of Columbia	4																				1													1	0	T.	
Florida	47				3	2				1			1	1	7	8	7	2	1	2	4	9	17	10	4	5			2	3			89	0	T.		
Georgia	55			1	4	2	7	5	5	4					1	1				1	7	9	5	1						6			58	0	T.		
Idaho	34			1	1									1	1	1											1		9	3	7		25	0	T.		
Illinois	92			1			2	47	4								3	8	6	29	11		1										112	0	T.		
Indiana	58						2	22	7		1								4	2	12						1		1	1			53	0	T.		
Indian Territory	11							3			3									2	4												12	0	T.		
Iowa	149			3		1	11	11					1	1	1	30	12	21	10														103	0	T.		
Kansas	77		1				10	11		2						2	5	3	21	10													67	1	T.		
Kentucky	41						3	20	8	1	1					4				1	11	1											49	1	T.		
Louisiana	46		2	12	5	3	1	6	5	5	6	1		3	3					12	9	3						10	5			91	0	T.			
Maine	19																																	0	0	T.	
Maryland	48							1	2	1	1					1					4	13	3	5									32	4	T.		
Massachusetts	48																								1	1		1	1	1				4	1	T.	
Michigan	106								25				1	1		4	6	33	19	13	1		1										104	0	T.		
Minnesota	67							1								2	9	18	3															36	1	T.	
Mississippi	44			2	1	3	4	8	10	8	10	1			3			1		3	2							3	2	2			62	0	T.		
Missouri	95						22	47	2	3						5	2	2	32	3		1												119	0	T.	
Montana	40																																	9	1	T.	
Nebraska	142															4	12	6	27	3								2						60	0	T.	
Nevada	40																																	3	0	T.	
New Hampshire	19																																	0	0	T.	
New Jersey	51		1							2	2											11	2	2	4									24	0	T.	
New Mexico	31																									1								3	0	T.	
New York	99							1													3	1		1	3				5		2			17	1	T.	
North Carolina	56					5	6	6	10	6	3	1		1							12	18	8	5										83	0	T.	
North Dakota	48																																		0	1	T.
Ohio	128					1	1	51	1											1	70	1												127	0	T.	
Oklahoma	23						5	5	1	6								1	8	5														30	1	T.	
Oregon	74			1																						1								1	1	T.	
Pennsylvania	91								4							1						4	3		1									14	1	T.	
Rhode Island	7																								1	1								2	0	T.	
South Carolina	46			1			3		5	6	2	1										6	16	14	2	1								57	0	T.	
South Dakota	56															1	7	7	10	2							1	1			3	1	6	39	0	T.	
Tennessee	56					11	17	23	14	5	9	1				3				1	14	8	1		1	2	1							111	0	T.	
Texas	95			5	2		2	7	7	14	15									1	24	15	3				1	12						111	0	T.	
Utah	47					5	1									4	1									1	1							27	0	T.	
Vermont	16																										1								0	1	T.
Virginia	50																				5	20	10	8	1									65	0	T.	
Washington	64														1						1									8	3	6		19	0	T.	
West Virginia	43							7	5		5	4									12	10	3	1										48	0	T.	
Wisconsin	60						2	8		1						8	11	22	14	1															67	0	T.
Wyoming	31										1	1									1														0	9	T.
Sums	2,893	T. A.	1 0	4 0	25 0	20 0	47 0	111 0	341 1	107 2	81 0	61 1	9 0	1 0	18 0	20 0	22 0	99 0	73 1	178 0	193 0	230 1	131 0	68 0	40 0	34 0	27 1	10 0	26 1	49 1	39 2	53 2	31 1	2149	14	T. A.	

TABLE V.—Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.75 in 1 hour during March, 1903, at all stations furnished with self-registering gages.

Table with columns: Stations, Date, Total duration (From-To), Total amount of precipitation, Excessive rate (Began-Ended), Amount before excessive began, and Depths of precipitation (in inches) during periods of time indicated (5 min to 120 min).

TABLE VII.—Heights of rivers referred to zeros of gages—Continued.

Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.	Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.
			Height.	Date.	Height.	Date.						Height.	Date.	Height.	Date.		
<i>Allegheny River.</i>									<i>Penobscot River.</i>								
Warren, Pa.	177	14	9.8	1, 11	3.0	21, 31	5.9	6.8	Mattawamkeag, Me. ³	87	.....	18.7	13	15.3	19, 20	16.6	3.4
Oil City, Pa.	123	13	12.9	1	3.2	31	6.7	9.7	Montague, Me. ⁴	60	.....	17.0	12	10.7	19	12.5	6.3
Parker, Pa.	73	20	15.0	1	3.5	31	7.5	11.5	<i>Kennebec River.</i>								
Freeport, Pa.	29	20	23.0	1	7.0	21, 30	12.1	16.0	Solon, Me.	86	.....	4.0	24	1.0	31	2.5	3.0
<i>Clarion River.</i>									Winslow, Me.	46	.....	8.5	12	3.1	30, 31	6.0	5.4
Clarion, Pa.	32	10	11.3	1	2.9	30, 31	5.1	8.4	<i>Merrimac River.</i>								
<i>Monongahela River.</i>									Franklin Junction, N. H.	110	.....	15.0	12	6.2	6-8	9.9	8.8
Weston, W. Va.	161	18	12.0	23	3.0	20	4.4	9.0	Concord, N. H. ⁵	94	.....	8.5	13	4.4	8	6.4	4.1
Fairmont, W. Va.	119	25	19.5	1	2.5	20	5.8	17.0	Manchester, N. H.	68	.....	6.1	13	2.6	30, 31	4.1	3.5
Greensboro, Pa.	81	18	24.7	1	8.0	20	11.0	16.7	<i>Connecticut River.</i>								
Lock No. 4, Pa.	40	28	32.5	1	7.7	21	13.1	24.8	Wells River, Vt. ⁶	255	.....	32.8	24	24.3	8	28.9	8.5
<i>Conemaugh River.</i>									White River Junction, Vt.	209	.....	21.8	24	8.5	7, 8	14.7	13.3
Johnstown, Pa.	64	7	7.8	1	2.8	20-22	3.8	5.0	Bellows Falls, Vt.	170	12	11.8	24	4.0	7	7.2	7.8
<i>Red Bank Creek.</i>									Holyoke, Mass.	84	9	9.8	12, 25	3.8	7	6.8	6.0
Brookville, Pa.	35	8	3.8	1	0.5	30	1.6	3.3	Hartford, Conn.	50	13	23.3	26	9.9	8	16.9	13.4
<i>Beaver River.</i>									<i>Housatonic River.</i>								
Ellwood Junction, Pa.	10	14	11.0	1	3.4	31	5.0	7.6	Gaylordsville, Conn.	50	15	9.3	1	5.6	21	7.0	3.7
<i>Great Kanawha River.</i>									<i>Susquehanna River.</i>								
Charleston, W. Va.	58	30	33.0	24	5.7	20	10.7	27.3	Binghamton, N. Y.	306	16	13.7	1	5.4	21	8.6	8.3
<i>Little Kanawha River.</i>									Towanda, Pa.	262	16	15.5	24	4.3	21	8.0	11.1
Glenville, W. Va.	103	20	15.6	23	-1.0	20	3.2	16.6	Wilkesbarre, Pa.	183	17	22.4	25	8.3	22	13.9	14.1
<i>Neo River.</i>									Harrisburg, Pa.	69	17	17.1	2	4.9	21	9.0	12.2
Radford, Va.	155	14	15.0	23	1.0	6, 7, 20, 21	2.3	14.0	<i>West Branch Susquehanna.</i>								
Hinton, W. Va.	95	14	14.9	24	2.9	21	5.1	12.0	Lockhaven, Pa.	65	12	8.5	1	1.4	21, 22	3.3	7.1
<i>Cheat River.</i>									Williamsport, Pa.	39	20	17.7	1	4.4	21	8.4	13.3
Rowlesburg, W. Va.	36	14	8.7	1	1.6	21	3.5	7.1	<i>Juniata River.</i>								
<i>Ohio River.</i>									Huntington, Pa.	90	24	10.3	23	4.0	20, 21	5.3	6.3
Pittsburg, Pa.	966	22	28.9	1	5.4	21	12.0	23.5	<i>Shenandoah River.</i>								
Davis Island Dam, Pa.	960	25	26.5	1	7.5	21	12.6	19.0	Riverport, Va.	58	22	8.0	1, 23, 31	1.5	29, 30	3.3	6.5
Beaver Dam, Pa.	925	27	38.1	2	10.0	21	18.4	28.1	<i>Potomac River.</i>								
Wheeling, W. Va.	875	36	40.2	2	10.0	22	19.6	30.2	Cumberland, Md.	290	8	8.0	1	3.3	20	4.8	4.7
Parkersburg, W. Va.	785	36	39.9	3	10.6	21	22.9	29.3	Harpers Ferry, W. Va.	172	18	14.0	1	3.0	18-21	6.6	11.0
Point Pleasant, W. Va.	703	39	45.0	4	15.5	21	30.5	29.5	<i>James River.</i>								
Huntington, W. Va.	660	50	48.3	4	20.2	21, 22	35.5	28.1	Lynchburg, Va.	260	18	12.7	24	2.0	21	4.3	10.7
Catlettsburg, Ky.	651	50	49.7	4	20.4	22	36.5	29.3	Richmond, Va.	111	12	14.0	25	0.8	21	4.2	13.2
Portsmouth, Ohio	612	50	51.3	4	22.5	22	38.6	28.8	<i>Dan River.</i>								
Cincinnati, Ohio.	499	50	53.2	5	26.2	23	42.5	27.0	Danville, Va.	55	8	8.6	23	0.5	20	2.1	8.1
Madison, Ind.	413	46	45.0	6	23.5	24	37.0	21.5	<i>Roanoke River.</i>								
Louisville, Ky.	367	38	28.5	9	9.8	24, 25	19.6	18.7	Clarksville, Va.	196	12	16.8	25	4.7	21	7.6	12.1
Evansville, Ind.	184	25	42.4	11	26.7	27	36.9	15.7	Weldon, N. C.	129	30	42.7	26	11.9	21	21.4	30.8
Paducah, Ky.	47	40	47.6	15, 16	32.4	31	41.7	15.2	<i>Cape Fear River.</i>								
Cairo, Ill.	1,073	45	50.6	15-17	40.7	31	46.6	9.9	Fayetteville, N. C.	112	38	50.5	25	7.2	21	20.3	48.3
<i>Muskingum River.</i>									<i>Edisto River.</i>								
Zanesville, Ohio	70	20	23.8	1	8.6	30	15.7	15.2	Edisto, S. C.	75	6	4.9	31	3.6	17	4.2	1.3
<i>Scioto River.</i>									<i>Pedee River.</i>								
Columbus, Ohio.	110	17	15.8	1	3.5	30, 31	6.6	12.3	Cheraw, S. C.	149	27	33.8	24	5.8	21	16.8	28.0
<i>Miami River.</i>									<i>Black River.</i>								
Dayton, Ohio	77	18	11.8	1	2.4	28-31	4.5	9.4	Kingstree, S. C.	52	12	10.5	5	8.8	23, 24	9.5	1.7
<i>Wabash River.</i>									<i>Lynch Creek.</i>								
Mount Carmel, Ill.	50	15	22.3	12	6.6	31	17.3	15.7	Effingham, S. C.	35	12	10.6	9	7.1	13	9.0	3.5
<i>Licking River.</i>									<i>Santee River.</i>								
Falmouth, Ky.	30	25	18.5	1	3.0	28	7.4	15.5	St. Stephens, S. C.	97	12	15.6	31	8.6	26, 27	9.6	7.0
<i>Kentucky River.</i>									<i>Congaree River.</i>								
High Bridge, Ky.	117	17	23.4	3	12.0	20, 29, 30	15.1	11.4	Columbia, S. C.	37	15	23.9	24	2.4	20, 21	7.8	21.5
Frankfort, Ky.	65	31	21.9	3	8.0	30	11.3	13.9	<i>Waterce River.</i>								
<i>Huacasee River.</i>									<i>Waccamaw River.</i>								
Charleston, Tenn.	18	22	23.5	1	4.5	20	9.2	19.0	Camden, S. C.	45	24	30.4	25	8.5	21	18.5	21.9
<i>Holston River.</i>									<i>Conway River.</i>								
Rogersville, Tenn.	103	14	14.3	24	2.9	20, 21	4.6	11.4	Calhoun Falls, S. C.	347	15	14.5	24	3.6	8, 11	5.6	10.9
<i>French Broad River.</i>									<i>Savannah River.</i>								
Asheville, N. C. ¹¹	6	.....	.....	.....	.....	.....	.....	.....	Augusta, Ga.	268	32	30.0	25	11.6	21	17.7	18.4
Leadvale, Tenn.	70	15	11.0	23	1.2	20	3.9	9.8	<i>Broad River.</i>								
<i>Cinch River.</i>									<i>Flint River.</i>								
Spears Ferry, Va.	156	20	16.9	23	1.0	20	3.6	15.9	Carlton, Ga.	30	11	21.0	24	3.2	20	5.7	17.8
Clinton, Tenn.	52	25	22.5	25	7.5	20, 21	13.1	15.0	Albany, Ga.	80	20	13.6	31	7.0	2	9.6	6.6
<i>Tennessee River.</i>									<i>Chattahoochee River.</i>								
Knoxville, Tenn.	635	29	24.6	24	3.9	20	8.8	20.7	Oakdale, Ga.	305	18	23.4	24	4.6	19	10.3	18.8
Kingston, Tenn.	556	25	20.2	25	4.0	22	10.0	16.2	Westpoint, Ga.	239	20	15.5	26	5.0	20	8.9	10.5
Chattanooga, Tenn.	452	33	31.1	2	9.0	20-22	17.8	22.1	Eufaula, Ala.	90	40	30.0	25	7.8	22	11.4	22.2
Bridgesport, Ala.	402	24	23.4	3	7.0	21	14.3	16.4	<i>Ocmulgee River.</i>								
Florence, Ala.	255	16	18.7	6, 7	7.7	23, 24	14.0	11.0	Hollingsworth Ferry, Ga.	172	8	13.3	31	8.6	24-27	9.7	4.7
Riverton, Ala.	225	25	31.0	8	10.8	24	22.5	20.2	Macon, Ga.	125	18	19.0	25	6.4	21	10.7	12.6
Johnsonville, Tenn.	95	24	33.7	11	14.5	26	25.6	19.2	<i>Oconee River.</i>								
<i>Cumberland River.</i>									<i>Cosca River.</i>								
Burnside, Ky.	516	50	55.1	1	6.2	30	16.6	48.9	Rome, Ga.	271	30	28.6	1	5.3	20	14.2	23.3
Carthage, Tenn.	305	40	36.3	3	9.5	30	22.0	26.8	Gadsden, Ga.	144	18	22.2	6	7.3	19, 20	15.5	14.9
Nashville, Tenn.	189	40	40.7	9	13.8	31	27.7	26.9	<i>Alabama River.</i>								
Clarksville, Tenn.	126	42	49.6	11	17.0	31	34.3	32.6	Montgomery, Ala.	265	35	39.7	3	11.9	22	25.1	27.8
<i>Arkansas River.</i>									Selma, Ala.	212	35	42.8	5	16.0	22, 23	29.4	26.8
Wichita, Kans.	832	10	2.3	15	1.4	1, 2	1.9	0.9	<i>Tombigbee River.</i>								
Webbers Falls, Ind. T.	465	23	18.8	11	6.4	31	11.2	12.4	Columbus, Miss.	303	33	20.0	16	3.4	30	12.8	16.6
Fort Smith, Ark.	403	22	21.6	11	7.2	31	13.4	14.4	Demopolis, Ala.	155	35	54.1	1	24.2	31	46.6	29.9
Dardanelle, Ark.	256	21	20.9	12	8.9	31	14.8	12.0	<i>Black Warrior River.</i>								
Little Rock, Ark.	176	23	23.3	13	11.5	31	17.8	11.8	Tuscaloosa, Ala.	90	43	54.3	1	11.6	29	29.1	42.7
<i>White River.</i>									<i>Brassos River.</i>								
Newport, Ark.	150	26	28.7	12, 13	18.5	31	23.3	10.2	Kopperl, Tex.	369	21	7.0	1	0.6	30, 31	2.8	6.4
<i>Yazoo River.</i>									Waco, Tex.	301	24	14.5	20	5.0	19	7.9	9.5
Yazoo City, Miss.	80	25	28.6	31	24.1	1	26.4	4.5	Booth, Tex.	76	39	38.7	7	12.5	31	24.4	26.2
<i>Red River.</i>									<i>Red River of the North.</i>								
Arthur City, Tex.	638	27	21.0	2	9.4	31	13.8	11.6	Moorhead, Minn. ¹²	418	26	.....	.....	.....	.....	.....	.....
Fulton, Ark.	515	28	31.2	14	22.0	31	28.0	9.2	<i>Columbia River.</i>								
Shreveport, La.	327	29	33.1	22, 23	28.8	1	31.4	4.3	Umatilla, Oreg.	270	25	8.1	31	-0.5	1	1.6	8.6
Alexandria, La.	118	33	36.2	27-29	29.6	1	34.4	6.6	The Dalles, Oreg.	166	40	11.8	31	1.5	13	3.8	10.3
<i>Ouachita River.</i>									<i>Willamette River.</i>								
Camden, Ark.	304	39	39.4	14	17.3	31	27.1	22.1	Albany, Oreg.	118	20	10.0	13	4.5	5-9, 23, 24	5.7	5.5
Monroe, La.	122	40	44.5	26-29	37.6	1	41.8	6.9	Portland, Oreg.	12	15	7.8	31	2.4	9	4.6	5.4
<i>Atchafalaya River.</i>									<i>Sacramento River.</i>								
Melville, La.	100	31	38.5	29-31	34.4	1	36.9	4.1	Red Bluff, Cal.	265	28	19.8	29	5.2	3	9.2	14.6
									Sacramento, Cal.	64	29	25.1	31	18.3	3	20.1	6.8

(1) Frozen for 13 days. (2) Frozen for 12 days. (3) Frozen for 11 days. (4) Frozen for 8 days. (5) Frozen for 7 days. (6) 16 days only. (7) No observations. (8) Frozen for 30 days. (9) Frozen for 1 day. (10) Frozen for 17 days. (11) Data incomplete. (12) Frozen for 26 days.